

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

CLAIMS

WE CLAIM:

5

Sub
C1

1. A tilt-latch for a sash window disposed within opposed guide rails on a master frame, the sash window comprises a top rail, a base and two stiles connected together at their extremities, the tilt-latch adapted for releaseably securing the sash window to the master frame, the tilt-latch comprising:

10

a housing adapted to be supported by the top rail, the housing having an outward end opening and a cover;

a latch bolt disposed within the housing and having a nose adapted for engaging a respective one of the guide rails; and,

an actuator connected to the latch bolt and sized to be positioned over the entire cover.

15

2. The tilt-latch of claim 1 further comprising means for biasing the latch bolt through the outward end opening.

20

3. The tilt-latch of claim 1 wherein the cover has opposed longitudinal peripheral edges and the actuator has opposed depending longitudinal flanges, the flanges being positioned over the peripheral edges.

25

4. The tilt-latch of claim 3 wherein the flanges slide along the peripheral edges when the latch bolt is retracted into the housing.

5. The tilt-latch of claim 1 wherein the housing is adapted for substantially flush installation in the top rail wherein the cover is positioned on the top rail, wherein the actuator slides along the cover when retracting the latch bolt into the housing exposing a front segment of the cover.

C/ 6. The tilt-latch of claim 1 wherein the latch bolt has a slot and the actuator has a post, the post being received by the slot.

5 7. The tilt-latch of claim 6 wherein latch bolt has a finger extending into the slot and the actuator post has a tab, the tab engaging an underside of the finger.

8. The tilt-latch of claim 6 wherein the cover has an elongated opening wherein the post extends through the elongated opening and into the slot.

10 9. The tilt-latch of claim 6 wherein the actuator has a pair of ridges depending from an underside of the actuator and extending from the post.

Sub
A1 10. The tilt-latch of claim 1 wherein the cover has an underside surface, the underside surface having a recessed portion accommodating the cover of the housing.

11. The tilt-latch of claim 10 wherein the cover is rectangular, the recessed portion being rectangular and corresponding in size to the cover.

20 12. The tilt-latch of claim 10 wherein the cover has a rear transverse edge that engages a rear transverse edge defined by the recessed portion.

13. The tilt-latch of claim 1 wherein the actuator has a control button.

25 14. The tilt-latch of claim 1 wherein the housing is adapted for substantially flush installation in the top rail and wherein the actuator slides along a top surface of the top rail when the latch bolt is retracted into the housing.

15. The tilt-latch of claim 1 wherein the actuator is made of metal.

30

16. The tilt-latch of claim 15 wherein the actuator is made of zinc.

09713163-111400

17. The tilt-latch of claim 1 wherein the housing and latch bolt are made from plastic.

18. The tilt-latch of claim 1 wherein the biasing means comprises a spring.

19. The tilt-latch of claim 1 wherein the top rail has opposed header slots and the housing includes means for supporting the housing in the header slots.

Sub #2 / 20. The tilt-latch of claim 21 wherein each header slot defines a pair of header rails and the housing has sidewalls wherein the means for supporting comprises a longitudinal groove on each sidewall, the longitudinal groove receiving the header rail to support the housing in the top rail.

21. The tilt-latch of claim 1 wherein the housing further includes a depending tab engaging one of the stiles.

22. A tilt-latch for a sash window disposed within opposed guide rails on a master frame, the sash window comprises a top rail, a base and two stiles connected together at their extremities, the tilt-latch adapted for releaseably securing the sash window to the master frame, the tilt-latch comprising:

a plastic housing adapted to be supported by the top rail, the housing having an outward end opening;

a plastic latch bolt disposed within the housing and having a nose adapted for engaging a respective one of the guide rails; and

a metal actuator connected to the latch bolt.

23. The tilt-latch of claim 22 further comprising means for biasing the latch bolt through the outward end opening.

24. The tilt-latch of claim 22 wherein the actuator is made of zinc.

09713163-111400

25. The tilt-latch of claim 22 wherein the housing has a cover and the actuator is sized to be positioned over the entire cover.

26. The tilt-latch of claim 25 wherein the cover has opposed longitudinal peripheral edges and the actuator has opposed depending longitudinal flanges, the flanges being positioned over the peripheral edges.

27. The tilt-latch of claim 26 wherein the flanges slide along the peripheral edges when the latch bolt is retracted into the housing.

28. The tilt-latch of claim 25 wherein the actuator slides along the cover when retracting the latch bolt into the housing exposing a front segment of the cover.

29. The tilt-latch of claim 22 wherein the latch bolt has a slot and the actuator has a post, the post being received by the slot.

30. The tilt-latch of claim 29 wherein latch bolt has a finger extending into the slot and the actuator post has a tab, the tab engaging an underside of the finger.

31. The tilt-latch of claim 29 wherein the housing has a cover having an elongated opening wherein the post extends through the elongated opening and into the slot.

32. The tilt-latch of claim 22 wherein the actuator has a control button.

33. An actuator for a tilt-latch for a sash window disposed within opposed guide rails on a master frame, the sash window comprises a top rail, a base and two stiles connected together at their extremities, the tilt-latch adapted for releaseably securing the sash window to the master frame, the tilt-latch comprises a housing adapted to be supported by the top rail, the housing having an outward

end opening and a cover, and a latch bolt disposed within the housing and having a nose adapted for engaging a respective one of the guide rails, the actuator comprising:

an elongated body connected to the latch bolt and sized to be positioned over the entire cover.

34. The tilt-latch actuator of claim 33 wherein the cover is adapted to have opposed longitudinal peripheral edges and the actuator has opposed depending longitudinal flanges, the flanges adapted to be positioned over the peripheral edges.

35. The tilt-latch actuator of claim 34 wherein the flanges are adapted to slide along the peripheral edges when the latch bolt is retracted into the housing.

36. The tilt-latch actuator of claim 33 wherein the housing is adapted for substantially flush installation in the top rail wherein the cover is adapted to be positioned on the top rail, wherein the actuator is adapted to slide along the cover when retracting the latch bolt into the housing exposing a front segment of the cover.

37. The tilt-latch actuator of claim 33 wherein the latch bolt is adapted to have a slot and the actuator has a post, the post adapted to be received by the slot.

38. The tilt-latch actuator of claim 33 wherein the elongated body is made of zinc.

39. A tilt-latch for a sash window disposed within opposed guide rails on a master frame, the sash window comprises a top rail, a base and two stiles connected together at their extremities, the top rail having opposed header slots, the tilt-latch adapted for releaseably securing the sash window to the master frame, the tilt-latch comprising:

a plastic housing having means for supporting the housing in the header slot, the housing having an outward end opening, the housing further having a cover and a pair of sidewalls depending from the cover, the cover having opposed longitudinal peripheral edges and an elongated opening positioned within the peripheral edges;

a plastic latch bolt disposed within the housing and having a nose adapted for engaging a respective one of the guide rails, the latch bolt having a slot, the latch bolt further having a spring wall;

a spring having one end positioned abutting the spring wall and another end abutting the housing wherein the latch bolt is biased through the outward end opening; and,

a zinc actuator having a post that is received by the slot wherein the actuator is connected to the latch bolt, the actuator having a pair of opposed depending longitudinal flanges, the actuator being sized to be positioned over the entire the cover and wherein the flanges are positioned over the longitudinal peripheral edges of the cover and wherein the actuator slides along the cover when retracting the latch bolt into the housing.

40. A tilt-latch for a sash window disposed within opposed guide rails on a master frame, the sash window comprises a top rail, a base and two stiles connected together at their extremities, the tilt-latch adapted for releaseably securing the sash window to the master frame, the tilt-latch comprising:

a housing adapted to be supported by the top rail, the housing having an outward end opening and an inner wall; and

a latch bolt disposed within the housing and having a nose adapted for engaging a respective one of the guide rails, the latch bolt further having a protrusion; and,

wherein the latch bolt has an extended position wherein the nose of the latch bolt extends through the outward end opening and wherein the protrusion is spaced from the wall, and wherein the latch bolt has a retracted position wherein the protrusion engages the wall to maintain the latch bolt in the retracted position.

Add
A3

09713163-11400